Actiontec®

54 Mbps

Wireless USB Adapter

Model #: 802UIG

User Manual

Solutions for the Digital Life™

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Introduction 1

Thank you for purchasing the *Action*tec 54 Mbps Wireless USB Adapter. The 54 Mbps Wireless USB Adapter features the latest wireless technology and security protocols to keep your data accessible and secure. This easy-to-set-up, easy-to-use product is perfect for the mobile, home, or small office computer user. If you want to take your computing to the next level, the *Action*tec 54 Mbps Wireless USB Adapter is one of the keys to your success.

This User Manual will show you how to set up the 54 Mbps Wireless USB Adapter and customize its configuration to get the most out of your wireless network. The 54 Mbps Wireless USB Adapter is compliant with the 802.11g specifications and requires a wireless access point, router/gateway, or any other compatible wireless device.

Package Contents

- *Action*tec 54 Mbps Wireless USB Adapter
- USB cable
- Installation CD (includes user manual)
- Quick Start guide

Minimum System Requirements

A computer with the following:

- USB connector (USB 1.1, 2.0 compatibility)
- Microsoft Windows 98 SE, Millennium Edition (Me), 2000, or XP
- TCP/IP network protocol installed
- Internet Explorer 5.0 or Netscape Navigator 5.0 (or higher)
- 64 Mb (or more) of RAM
- 200 MHz (or faster) processor

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Features

- IEEE 802.11b and 802.11g standards conformity
- USB interface (USB 1.1 [11 Mbps max.], 2.0 [54 Mpbs max.] compatible)
- WEP, WPA, WPA_PSK, and 802.1x support

Technical Support

*Action*tec Electronics prides itself on making durable, high-performance, high-quality products. If you need assistance, the *Action*tec Technical Support Department is available all day every day to provide professional support.

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Understanding the Wireless Network

2

Wireless local area networks (WLAN) perform the exact same functions as wired local area networks (LAN). Each computer in the WLAN uses a data radio device to connect to the network, and all computers in the network share the same frequency and method for identifying wireless devices. Wireless local area networks differ from wired local area networks only in their operating mode. The two operation modes are Ad Hoc and Infrastructure.

Ad Hoc Mode

Ad hoc mode is a networking framework by which wireless devices or stations communicate directly with each other, without the need for an access point or wireless router/gateway.

Ad hoc mode is also called peer-to-peer mode or independent basic service set (IBSS). This mode is useful when communicating among many computers locally without the need to connect to printers or file servers on a wired LAN.

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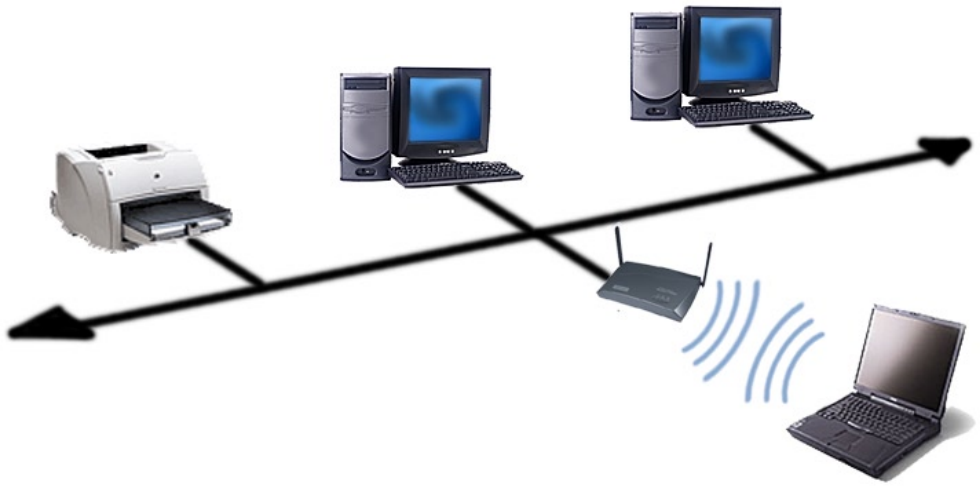
Infrastructure Mode

Infrastructure mode is a networking framework where devices communicate with each other by first going through an access point or wireless router/gateway. Infrastructure mode lets wireless devices communicate with each other or with a wired network.
Two types of service can exist while in infrastructure mode:

Basic Service Set (BSS) - An access point connected to a wired network and a set of wireless stations.

Extended Service Set (ESS) - A set of two or more basic service sets forming a single subnetwork.



☞ ***Note***: Corporate WLANs require infrastructure mode to use services such as file servers or printers.

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Setting Up the Adapter

3

The instructions that follow in this chapter parallel the steps contained in the *Action*tec Connection 1-2-3® setup utility, which provides a visual, step-by-step guide to setting up the USB Adapter. It is recommended the user run Connection 1-2-3 first, before attempting any other procedures.

Caution: Do not plug in the Adapter until instructed during the installation procedure.

1. Insert the Installation CD in the CD-ROM drive of the computer. Connection 1-2-3 starts automatically. Temporary files and drivers for the Adapter are loaded onto the hard drive, then the first Connection 1-2-3 screen appears. Read the onscreen instructions, then click **Next.**

Note: If Connection 1-2-3 does not start automatically, click **Start** from the desktop, then select **Run**. Type **`d:\c123.exe`** (with "d" representing the drive letter of the computer's CD-ROM drive) in the "Open" text box, and click **OK**.

Actiontec
Connection 1-2-3®
Welcome to Connection 1-2-3®.
This program will guide you through the easy steps of connecting your Wireless USB Adapter to your Computer. Please make sure that you already have an available Wireless Signal from an access point to connect to.
Click Next to continue.
Wireless USB Adapter
Next
Cancel
Help

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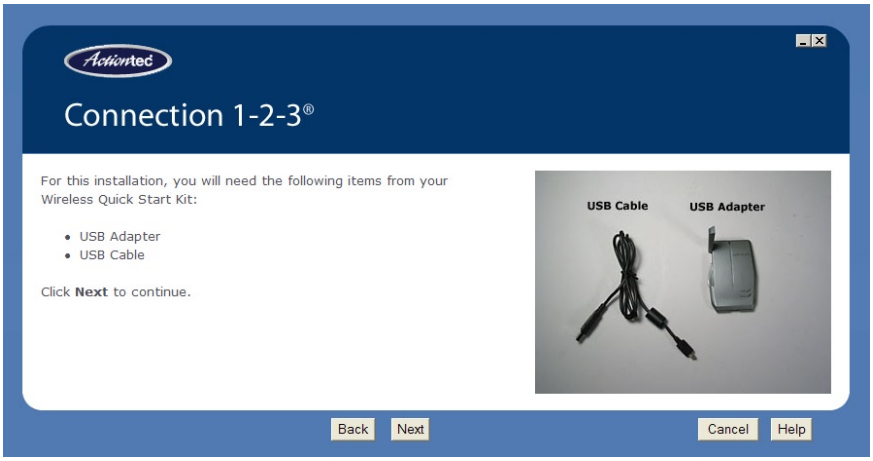
2. Get the USB cable and Adapter from the box, then click on **Next**.



3. Plug the smaller end of the USB cable into the port on the front of the Adapter, then click **Next**.

Connection 1-2-3®
STEP 1:
Plug the smaller end of the USB Cable into the Port located on the front of the adapter. Make sure the antenna is upright.
Click Next to continue.
Back
Next
Cancel
Help

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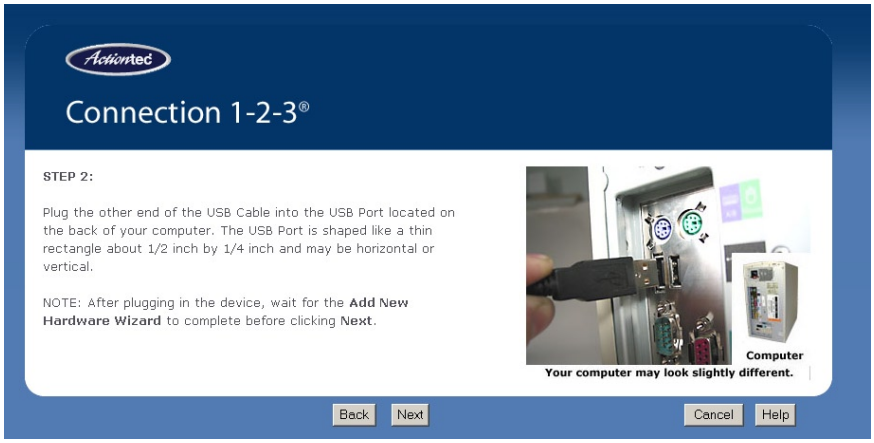
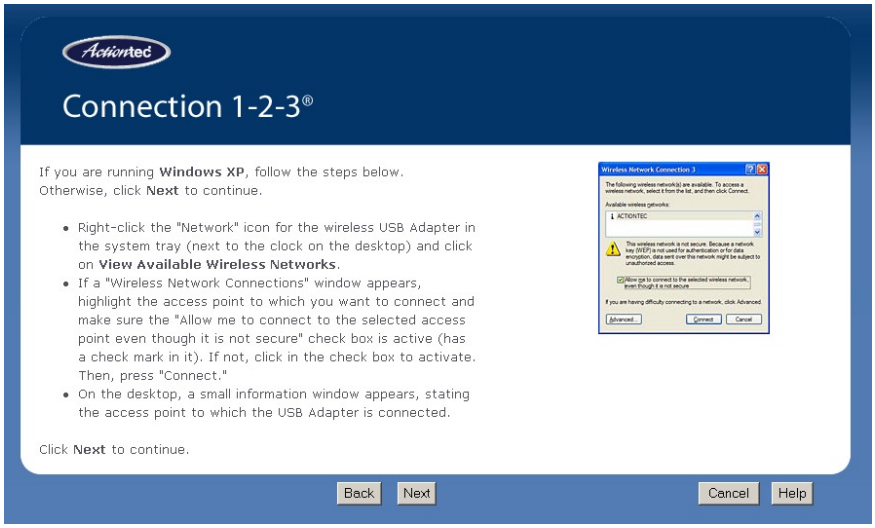
4. Plug the other end of the USB cable into the USB port located on the back of the computer.

☞ ***Note***: After plugging in the Adapter to the computer, wait for the "Add New Hardware Wizard" to complete before clicking **Next**.


Actiontec
Connection 1-2-3®
STEP 2:
Plug the other end of the USB Cable into the USB Port located on the back of your computer. The USB Port is shaped like a thin rectangle about 1/2 inch by 1/4 inch and may be horizontal or vertical.
NOTE: After plugging in the device, wait for the Add New Hardware Wizard to complete before clicking Next.
Computer
Your computer may look slightly different.
Back
Next
Cancel
Help

Click **Next**.

5. If using Windows XP, follow the steps on the next screen. Otherwise, click **Next** to continue.


Actiontec
Connection 1-2-3®
If you are running Windows XP, follow the steps below.
Otherwise, click Next to continue.
• Right-click the "Network" icon for the wireless USB Adapter in the system tray (next to the clock on the desktop) and click on View Available Wireless Networks.
• If a "Wireless Network Connections" window appears, highlight the access point to which you want to connect and make sure the "Allow me to connect to the selected access point even though it is not secure" check box is active (has a check mark in it). If not, click in the check box to activate. Then, press "Connect."
• On the desktop, a small information window appears, stating the access point to which the USB Adapter is connected.
Click Next to continue.
Back
Next
Cancel
Help

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☞ ***Note***: For systems running Windows 98 SE, the Windows 98 SE Installation CD may need to be accessed during the installation process. If this occurs, a window will appear, asking for 98 SE Installation CD. Remove the Connection 1-2-3 CD from the CD-ROM drive, replace it with the 98 SE Installation CD, then, when finished, remove it and put the Connection 1-2-3 CD back in the CD-ROM drive.

6. Connection 1-2-3 detects the Adapter. Click **Next**.

7. When the Adapter is successfully detected, make sure the Power light (PW) glows steadily orange. The Link Activity light (LK) may blink, as well. Click **Next**.

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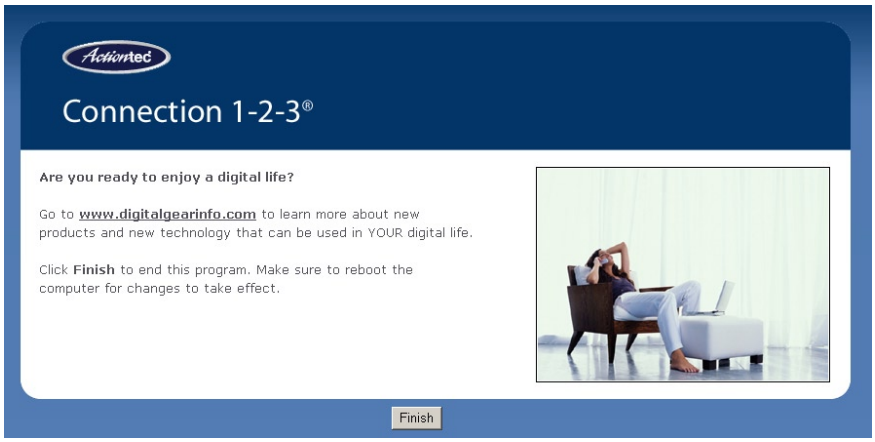
8. The congratulations screen appears. Click **Next**.

Actiontec
Connection 1-2-3®
Congratulations!
Your Wireless USB Adapter has successfully connected to your Wireless Network. If you wish to adjust the Wireless settings for your Wireless USB Adapter, please refer to the User Manual available on this CD-ROM.
Click Next to continue.
Wireless USB Adapter
Next
Cancel
Help

9. Read the onscreen instructions, then click **Finish**.


Actiontec
Connection 1-2-3®
Are you ready to enjoy a digital life?
Go to www.digitalgearinfo.com to learn more about new products and new technology that can be used in YOUR digital life.
Click Finish to end this program. Make sure to reboot the computer for changes to take effect.
Finish

Reboot the computer. The USB Adapter is now ready to use. For additional configuration options, see chapter 4, "Using the Wireless Configuration Utility." If using Windows XP, see Appendix B, "Using the Adapter With Windows XP."

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Using the Wireless Configuration Utility

4

To monitor the wireless network to which the USB Adapter is connected, as well as check or adjust wireless network settings, use the Wireless Configuration Utility. This Utility offers the ability to check wireless network signal strength, connect to a wireless network, and many other options.

☞ ***Note***: If the computer is using the Windows XP Wireless Configuration Utility, the *Action*tec Wireless Configuration Utility cannot be used. To use the *Action*tec Utility, disable the XP Utility by right-clicking on the appropriate network icon in the system tray, then selecting **Status** from the menu that appears. In the next window, click **Properties**. In the next window, make sure the check box next to "Use Windows to configure my wireless network settings" is deactivated (no check mark).

Opening the Wireless Configuration Utility

To open the Utility, go to the right-hand corner of the desktop. In the system tray (where the clock is located), right-click on the *Action*tec Wireless Configuration Utility icon (shown in the red circle, below)

☞ ***Note***: Depending on the operating system, the Utility icon may not appear in the system tray. A shortcut icon for the Utility will, however, appear on the desktop.

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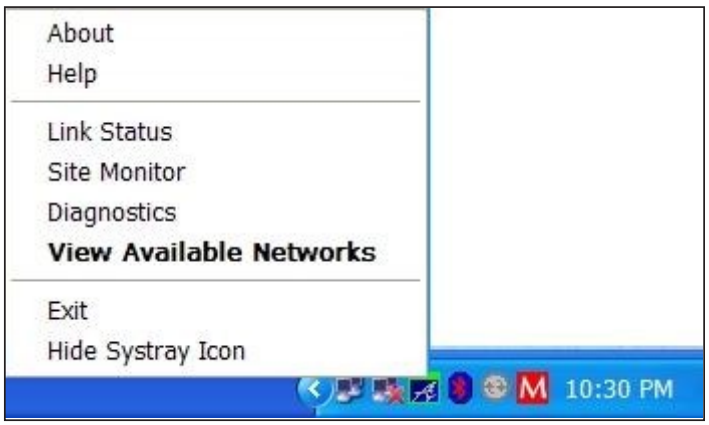
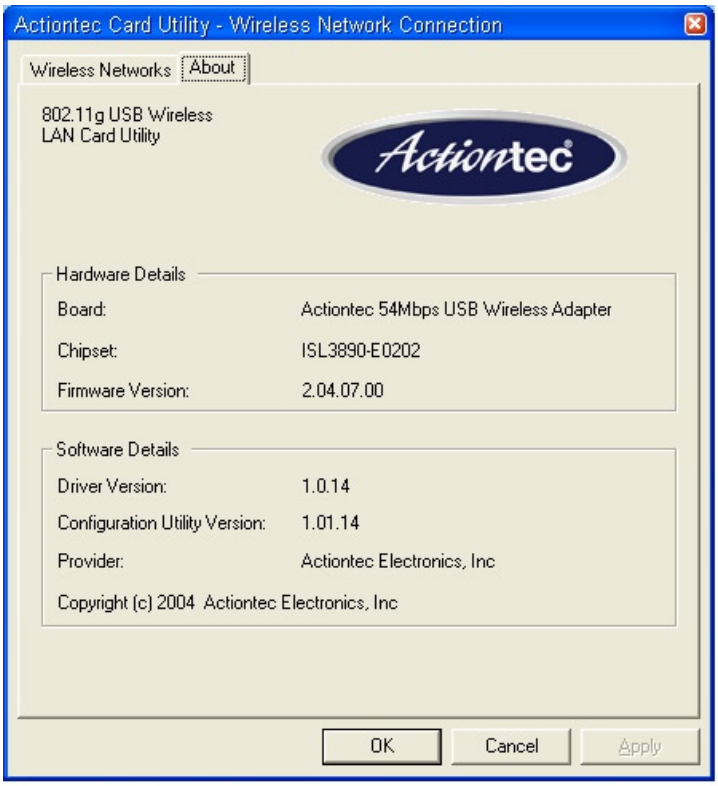
A menu appears, displaying the Utility's options. To select one, click on it, and the appropriate window will appear.



About

Selecting "About" from the Utility menu generates the "About" window.



This window displays the version numbers for the Adapter's chipset, driver version, and firmware.

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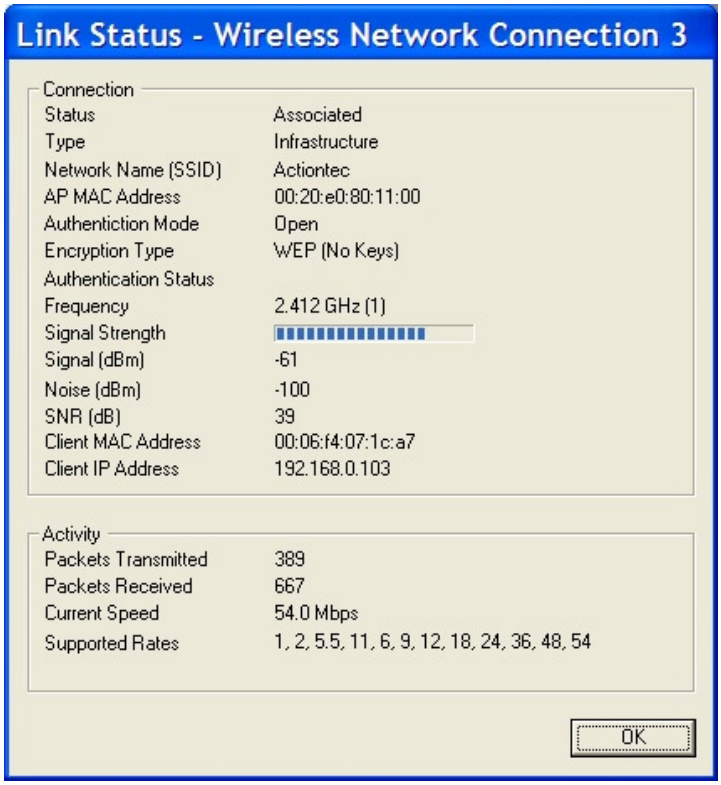
Link Status

Selecting "Link Status" from the Utility menu generates the "Link Status" window. The Link Status window provides information regarding the current status of the USB Adapter and its settings, including how many packets are being received and transmitted, transfer rate, SSID, IP address, and other related settings.



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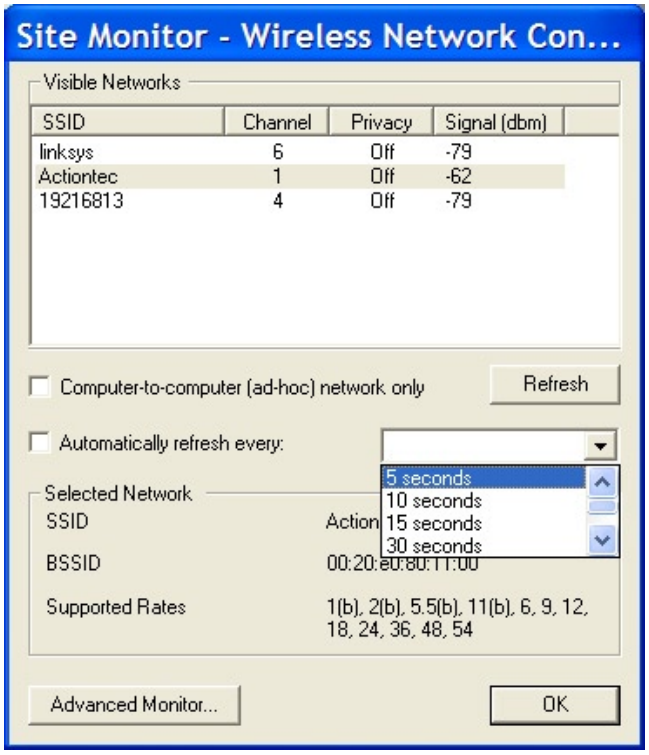
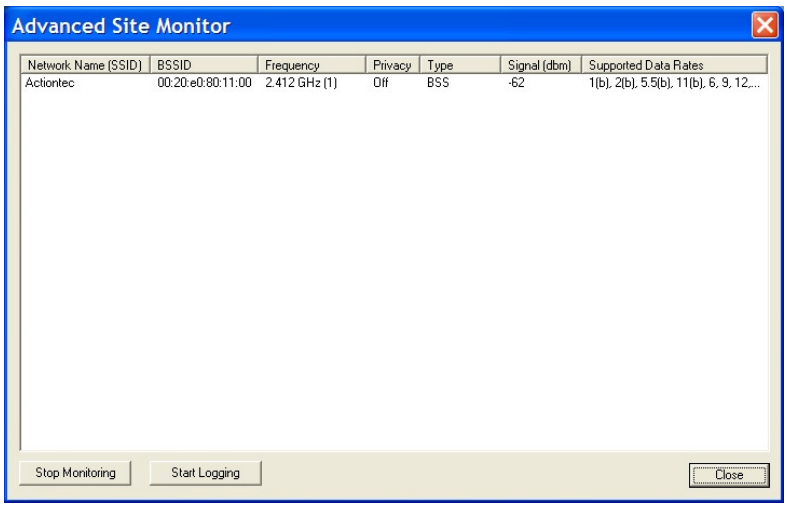
Site Monitor

Selecting "Site Monitor" from the Utility menu generates the "Site Monitor" window. The Site Monitor window displays information regarding nearby visible access points or wireless routers/gateways, as well as other computers available through ad hoc networks.



To view more information about a particular network, select it from the "Visible Networks" list box and click **Advanced Monitor**. The "Advanced Site Monitor" appears, displaying more information about the selected network.



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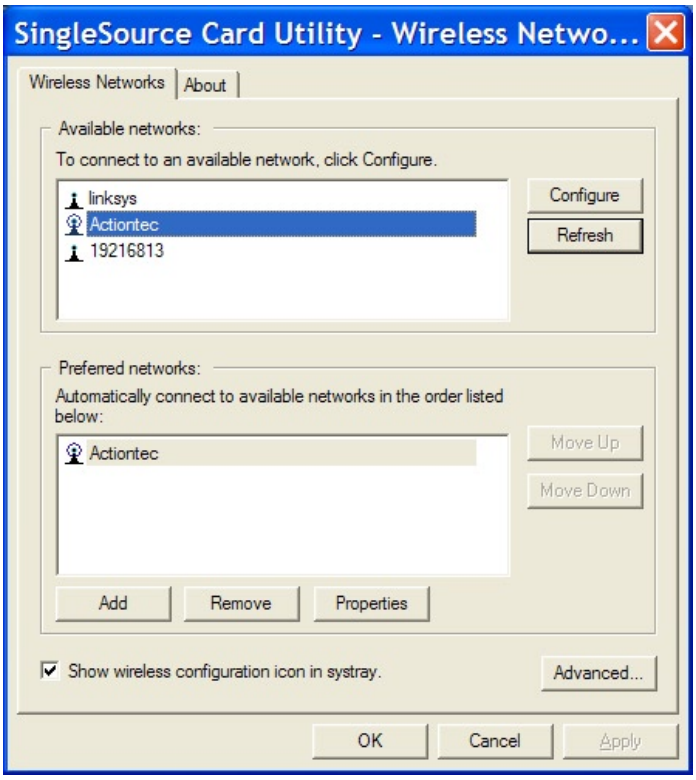
View Available Networks

Selecting "View Available Networks" from the Utility menu generates the "Single Source Card Utility" window. This window displays the available wireless networks, allowing the user to change networks.



To configure the SSID or name of a wireless network, highlight the name ("Actiontec" in the figure above, for example) and click **Configure**. To automatically connect to a particular network every time the Adapter searches for a network, click **Add**, select the network, and, when the network name appears in the "Preferred networks" list box, select it. Using the "Move Up" button, make sure the selected network appears at the top of the list.

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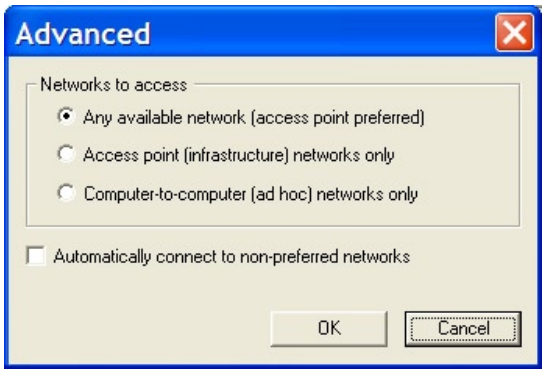
Advanced

Clicking "Advanced" in the Single Source Card Utility window generates the "Advanced" window.



Use this window to select the type of network to which the Adapter connects.

Exit

Selecting "Exit" from the Utility menu closes the Utility.

Hide Systray Icon

Selecting "Hide Systray Icon" removes the Utility icon from the system tray. To place it back in the system tray, start the Utility by selecting **Start** from the desktop, then **Programs**, **Actiontec 54 Mbps**, and **Wireless Utility**.

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Troubleshooting and FAQs

5

This chapter describes some common problems that may be encountered when using the USB Adapter, and ways to resolve the problems. Also included is a list of frequently asked questions.

Troubleshooting

The Adapter can't connect to an access point.

From the Network Properties applet, perform the following steps:

- Make sure the operating mode is set to Infrastructure mode.
- Make sure that the SSID is the same as the SSID of the access point. Many access points are case sensitive and require all devices to match the letter case as well.
- Check the security settings. In the WEP Encryption window, for example, make sure all of the WEP settings match the WEP settings of the access point.

Changing the Adapter's IP address.

There are two methods to change the Adapter's IP address:

- Open the USB Adapter Network Connection from the Network Properties applet. Click on the IP Settings screen, click the Static IP Address radio button, and change the IP address.
- If you still have problems, unplug the Adapter from the computer and plug it back in. Then, change the IP address again.

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The computer won't detect the Adapter.

Make sure the USB cable is properly connected and that the orange Power light (PW) is on. Also, make sure the computer's USB drivers are properly installed.

Frequently Asked Questions

How far can I be from the access point and maintain a connection?

The access point's range depends on the environment. Indoor range is approximately 91 meters (300 ft.) or more; outdoor range can reach up to 533 meters (1750 ft.).

How fast is the wireless network?

The rated speed of the wireless network under optimal conditions is 54 Mbps. This speed does vary, depending on distance from the access point and the amount of attenuation (physical barriers such as walls, glass, etc.) the wireless signal must go through.

My Adapter seems to be installed correctly and it says that it is getting a link, but I can't access the Internet. What should I do?

Disable any other network adapters that may be installed on the computer. If these adapters were installed prior to the USB Adapter, they may be preventing you from getting on the web. If using Windows XP, right-click on My Network Places and click Properties in the next window to ensure that no network bridges have been installed on your computer. These can also prevent the Adapter from getting online.

Can I use the Adapter to connect to the 802.11b access point?

Yes, the Adapter can connect to an 802.11b access point.

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Will cordless phones interfere with the Adapter?

The Adapter uses the 2.4 GHz frequency. If your cordless phone uses this frequency, problems may occur. Different cordless phones use different frequencies, and generally include a label stating which frequency they use. If you are having problems with interference caused by your cordless phone, try changing the channel of your wireless network. This can sometimes clear up interference issues. Any wireless device using the 2.4 GHz frequency can cause wireless interference.

Can my wireless signal pass through floors, walls, and glass?

The effect of the physical environment can have varying effects on signal strength and quality. The denser an object (a concrete wall compared to a plaster wall, for example), the greater the interference. Concrete or metal-reinforced structures cause a higher degree of wireless signal loss than those made of wood, plaster, or glass.

What is WEP?

Wireless Encryption Protocol (WEP) is the standard encryption mode for 802.11x communications.

How do I make a HEX-based WEP key?

64-bit WEP - Composed of 10 alphanumeric characters (0-9, A-F).
Example: 843A29A562

128-bit WEP - Composed of 26 alphanumeric characters (0-9, A-F).
Example: 3C29F2536BEF3276D32E364A2C

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How do I enable WEP in XP using the Wireless Zero Configuration Utility?

First, make sure the Adapter is correctly installed in the computer. Then, in the system tray (in the lower right hand side of the desktop, next to the clock), right-click on the appropriate wireless network (double computer) icon and select **View Available Wireless Networks**. When the "Connect to Wireless Network" window appears, click **Advanced**. The "Wireless Network Connection Properties" window appears. Select a wireless network, then click **Configure**. When the "Wireless Network Properties" window appears, make sure the correct SSID or network name is entered in the "Network Name (SSID)" text box. Then, activate "Data Encryption" by clicking in the appropriate check box. If the text boxes below remain grayed out, make sure the check box next to "The key is provided for me automatically" is unchecked (not active). Select a "Key format" and "Key length" from the appropriate list boxes, then enter the WEP key in the "Network key" text box. If connecting to an ad hoc network, click in the "This is a computer-to-computer (ad hoc) network…" check box to activate. Click **OK**.

What is the difference between 40-bit and 64-bit encryption?

There really is no difference between the two. They are different terminologies used throughout the industry for the same level of encryption.

I plugged in the Adapter to an available USB port but no "Found New Hardware Wizard" came up. What should I do?

The USB ports on the computer may be disabled in device manager or in the BIOS. If this is the case contact your computer manufacturer for help in activating the USB ports. Also, check that the drivers for the USB controller are installed correctly on the computer.

Everything installed fine and the Adapter was working until I shut down and restarted my machine. Now the computer is not detecting the Adapter. What should I do?

Some USB host controllers have a timing issue at boot up. If the Adapter is not being detected, try unplugging and then replugging (while the computer is already booted up) the Adapter. It should start working again.

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Specifications

A

General

Model Number

802UIG (54 Mbps Wireless USB Adapter)

Standards

IEEE 802.11b/g (Wireless)

Certification

FCC Part 15
CE (available for products purchased in Europe)

Frequency Band

2.4 - 2.4835 GHz

Interface

USB Plug-N-Play (compatible with USB 1.1 and 2.0)

Data Rate

802.11b: up to 11 Mbps
802.11g: up to 54 Mbps (when used with USB 2.0 only)

Data Encryption

64- and 128-bit WEP compatible
WPA
WPA_PSK
802.1x

Wireless Operating Range

Indoors

Up to 91 M (300 ft.)

Outdoors

Up to 533 M (1750 ft.)

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LED Indicators

Power (PW), Link Activity (LK)

Environmental

Operating Temperature

0º C to 65º C (32º F to 149º F)

Storage Temperature

-20º C to 85º C (-4º F to 185º F)

Operating Humidity

0% to 95% (non-condensing)

Storage Humidity

5% to 95% (non-condensing)

Note: Specifications are subject to change without notice.

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Using the Adapter with Windows XP

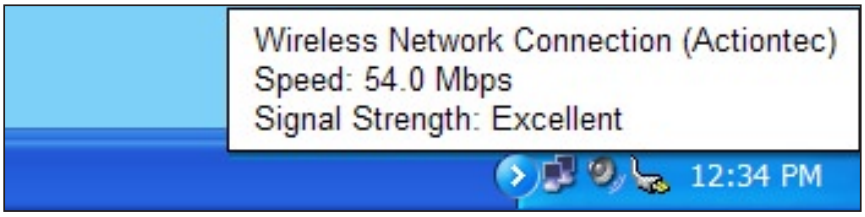
B

This appendix details connecting the USB Adapter to a wireless network on a computer running Windows XP.

Connecting to an Unsecured Access Point

If the Adapter has been properly installed, a pop-up box showing the name of the available access point appears. To connect to an another unsecured access point:

1. Locate the wireless network (double computer) icon corresponding to the Adapter by moving the cursor over the network icons in the system tray. When the correct icon is located, a dialog box similar to the one below appears.



2. Once the correct icon is located, right-click on it and, from the menu that appears, select **View Available Wireless Networks**.

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3. The "Wireless Network Connection" window appears. From the "Available wireless networks" list box, select the network (or SSID of the access point or wireless router/gateway) with which to connect.

Wireless Network Connection 2
The following wireless network(s) are available. To access a wireless network, select it from the list, and then click Connect.
Available wireless networks:
ACTIONTEC
This wireless network is not secure. Because a network key (WEP) is not used for authentication or for data encryption, data sent over this network might be subject to unauthorized access.
Allow me to connect to the selected wireless network, even though it is not secure
If you are having difficulty connecting to a network, click Advanced.
Advanced...
Connect
Cancel

4. Activate the box next to "Allow me to connect to the selected wireless network, even though it is not secure" by clicking in it to cause a check mark to appear.

5. Click **Connect**.

☞ ***Note***: If Windows XP SP1 is **not** running on the computer, the check mark will not appear and connection with an unsecured network will automatically appear.

The Adapter is connected to an unsecured wireless network.

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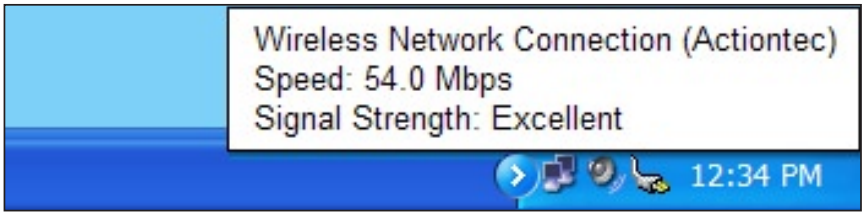
Connecting to a Secured Access Point

To connect to a secured access point:

1. Locate the wireless network (double computer) icon corresponding to the Adapter by moving the cursor over the network icons in the system tray. When the correct icon is located, a dialog box similar to the one below appears.



2. Once the correct icon is located, right-click on it and, from the menu that appears, select **View Available Wireless Networks**.

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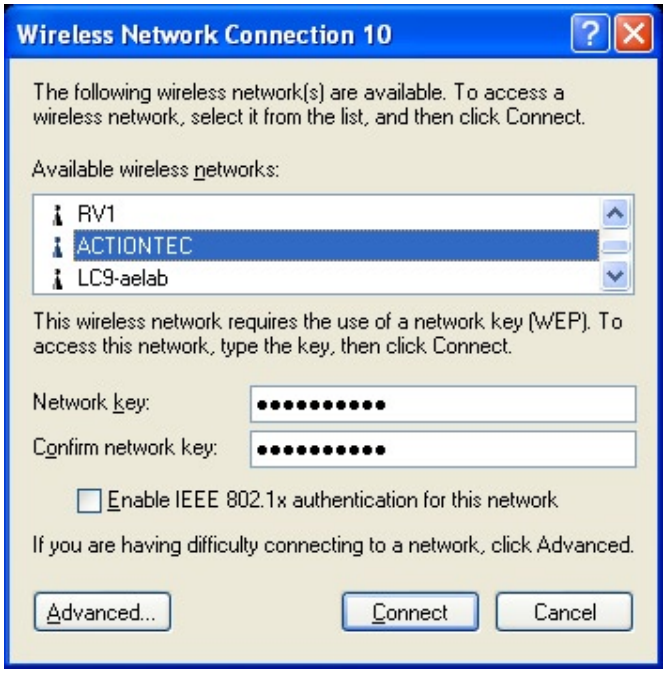
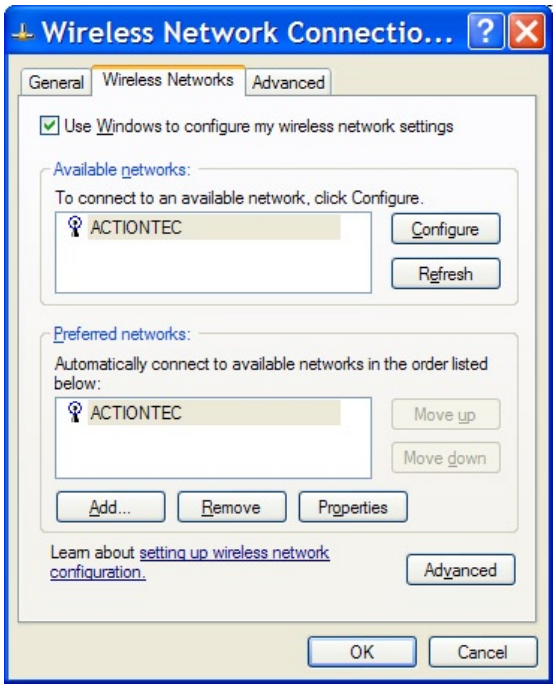
3. The "Wireless Network Connection" window appears. Click **Advanced**.


Wireless Network Connection 10
The following wireless network(s) are available. To access a wireless network, select it from the list, and then click Connect.
Available wireless networks:
RV1
ACTIONTEC
LC9-aelab
This wireless network requires the use of a network key (WEP). To access this network, type the key, then click Connect.
Network key:
Confirm network key:
Enable IEEE 802.1x authentication for this network
If you are having difficulty connecting to a network, click Advanced.
Advanced...
Connect
Cancel

4. When the window below appears, make sure the check box next to "Use Windows to configure my wireless network settings" is activated.



5. Select the SSID or access point to connect to, then click **Configure**.

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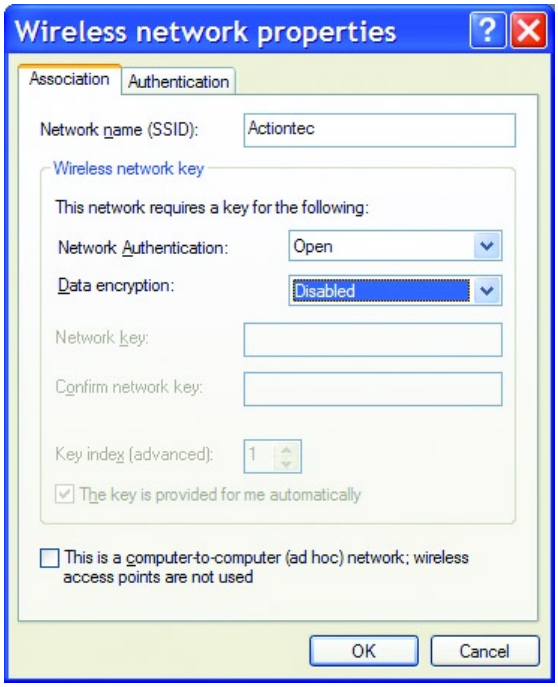
6. The "Wireless Network Properties" window appears. The name of the network selected in step 5 is displayed in the "Network Name" text box.



7. From the Wireless Network Properties window, select the type of network authentication from the "Network Authentication" menu list. The choices include:

Open - Open authentication allows any wireless station to communicate with the access point. In general, security is improved when using this method.

Shared - In Shared authentication mode, the client is required to have the secret key in order to authenticate with the access point.

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8. From the Wireless Network Properties window, select the type of data encryption used on the access point. The choices include:

   WEP - WEP (Wired Equivalent Privacy) is an authentication algorithm which protects authenticated wireless LAN users against eavesdropping.

   WPA-PSK - WPA-PSK is a simplified but still powerful form of WPA (see below) most suitable for home networking. To use WPA-PSK, a static key or "passphrase" is set, as with WEP. But, using TKIP, WPA-PSK automatically changes the keys at a preset time interval, making it much more difficult for hackers to find and access them.

   WPA - WPA (Wi-Fi Protected Access) is a security technology for wireless networks. WPA improves on the authentication and encryption features of WEP.

9. Enter the Network key. Confirm the key, if prompted.

10. If WPA is not selected, make sure the check box next to "The key is provided for me automatically" is activated.

11. Click **OK** in all open windows to close them.

The Adapter is connected to a secured wireless network.

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Glossary

Access Point

A device that allows wireless clients to connect to one another. An access point can also act as a bridge between wireless clients and a "wired" network, such as an Ethernet network. Wireless clients can be moved anywhere within the coverage area of the access point and remain connected to the network. If connected to an Ethernet network, the access point monitors Ethernet traffic and forwards appropriate Ethernet messages to the wireless network, while also monitoring wireless traffic and forwarding wireless client messages to the Ethernet network.

ATM (Asynchronous Transfer Mode)

A networking technology based on transferring data in fixed-size packets.

Client

A desktop or mobile computer connected to a network.

DHCP (Dynamic Host Configuration Protocol)

A protocol designed to automatically assign an IP address to every computer on the network.

DNS (Domain Name System) Server Address

Allows Internet host computers to have a domain name and one or more IP addresses. A DNS server keeps a database of host computers and their respective domain names and IP addresses so that when a user enters a domain name into a Web browser, the user is sent to the proper IP address. The DNS server address used by computers on the home network corresponds to the location of the DNS server the ISP has assigned.

DSL (Digital Subscriber Line) Modem

A modem that uses existing phone lines to transmit data at high speeds.

Encryption

A method to provide wireless data transmissions a level of security.

ESSID (Extended Service Set Identifier)

A unique identifier for a wireless network. Also known as "SSID."

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Ethernet Network

A standard wired networking configuration using cables and hubs.

Firewall

A method preventing users outside the network from accessing and/or damaging files or computers on the network.

Gateway

A central device that manages the data traffic of the network, as well as data traffic to and from the Internet.

IP (Internet Protocol) Address

A series of four numbers separated by periods identifying a unique Internet computer host.

ISP Gateway Address

An IP address for the Internet router. This address is only required when using a cable or DSL modem.

ISP (Internet Service Provider)

A business that allows individuals or businesses to connect to the Internet.

LAN (Local Area Network)

A group of computers and devices connected together in a relatively small area (such as a house or an office). A home network is considered a LAN.

MAC (Media Access Control) Address

The unique hardware address of a device connected to a network.

NAT (Network Address Translation)

A method allowing all of the computers on a home network to use one IP address, enabling access to the Internet from any computer on the home network without having to purchase more IP addresses from the ISP.

PC Card

An adapter that inserts in the PCMCIA slot of a computer, enabling the communication with a device.

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PPPoE (Point-To-Point Protocol over Ethernet)/ PPPoA (Point-To-Point Protocol over ATM)

Methods of secure data transmission.

Router

A central device that manages the data traffic of the network.

Subnet Mask

A set of four numbers configured like an IP address used to create IP address numbers used only within a particular network.

SSID

See "ESSID."

TCP/IP (Transmission Control Protocol/Internet Protocol)

The standard protocol for data transmission over the Internet.

USB (Universal Serial Bus)

An external peripheral interface standard for communicationis between a computer and external peripheral over a cable using biserial transmission.

WAN (Wide Area Network)

A network that connects computers located in separate areas, (i.e., different buildings, cities, countries). The Internet is a WAN.

WECA (Wireless Ethernet Compatibility Alliance)

An industry group that certifies cross-vender interoperability and compatibility of IEEE 802.11b wireless networking products and promotes the standard for enterprise, small business, and home environments.

WEP (Wired Equivalent Privacy)

A security protocol for WLANs defined in the 802.11b standard designed to provide the same level of security as a wired LAN.

WLAN (Wireless Local Area Network)

A group of computers and other devices connected wirelessly in a small area.

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Wi-Fi (Wireless Fidelity)

A generic term for any kind of wireless network.

WPA (Wi-Fi Protected Access)

An improved version of WEP using better encryption and authentication, designed to work with existing WEP-enabled products.

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Notices

Regulatory Compliance Notices

Class B Equipment

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by implementing one or more of the following measures:

- Reorient or relocate the receiving antenna;
- Increase the separation between the equipment and receiver;
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected;
- Consult the dealer or an experienced radio or television technician for help.

Modifications

The FCC requires the user to be notified that any changes or modifications made to this device that are not expressly approved by A*ction*tec Electronics, Inc., may void the user's authority to operate the equipment.

Declaration of conformity for products marked with the FCC logo – United States only.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference;

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2. This device must accept any interference received, including interference that may cause unwanted operation.

☞ ***Note***: To comply with FCC RF exposure compliance requirements, the antenna used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

For questions regarding your product or the FCC declaration, contact:

*Action*tec Electronics, Inc.
760 North Mary Ave.
Sunnyvale, CA 94085
United States
Tel: (408) 752-7700
Fax: (408) 541-9005

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